

The Stratospheric Observatory for Infrared Astronomy (SOFIA) – Current Status, Recent Results, Future Plans, and Synergies with the AKARI Archive

Dr. Thomas L. Roellig
NASA Ames Research Center

The Stratospheric Observatory for Infrared Astronomy comprises a 2.7m diameter telescope mounted in a heavily modified B747SP aircraft. The SOFIA program is a joint US NASA and German DLR program, with the development and operations costs split roughly 80%:20%, respectively. Although the observatory is funded by these two nations, its observing time is open to proposals from astronomers of any nationality. The observatory has been flying and taking scientific data since 2010 and currently observes astronomical targets from the stratosphere for approximately 800 research flight hours per year. Seven science instruments (with an eighth coming online in 2020) cover the visible to sub-millimeter wavelengths with a variety of spectral resolutions ranging up to 1e8. The AKARI Archive with its 1.7 to 180 micron wavelength coverage is a natural complementary source for follow-up observations with SOFIA. This presentation will cover the current SOFIA technical capabilities and will present a few recent science highlights that demonstrate the SOFIA/AKARI complementarity. The presentation will also cover the SOFIA proposal process and will summarize other partnership opportunities for additional observing time on SOFIA.